

CLAIMS:

1. An electrostatically atomizing device comprising:

a capillary carrier having a liquid collecting end and a discharge end opposite of said liquid collecting end, said liquid collecting end collecting a liquid for feeding the liquid through said carrier to said discharge end,

a first electrode electrically charging said liquid,

a second electrode opposed to said discharge end,

a voltage source applying a voltage across said first and second electrodes to thereby electrostatically charge the liquid at said discharge end and emitting the said liquid in the form of tiny ionized particles,

a steam supply that provides a steam of said liquid and feeding said steam to said liquid collecting end of said carrier for condensation of said liquid therearound in order that the condensed liquid is fed through said carrier to said discharge end.

2. The device as set forth in claim 1, wherein

said carrier is mounted within a case which is separated by a partition into a condensation compartment and a discharging compartment, said carrier extending through said partition to confine said liquid collecting end and said discharge end respectively within said condensation compartment and said discharging compartment,

said condensation compartment communicating with said steam supply to be supplied with said steam.

3. The device as set forth in claim 2, wherein

said condensation compartment being configured to make a circular flow of said steam around the liquid collecting end of said carrier.

4. The device as set forth in claim 2, wherein

said condensation compartment is provided with a liquid absorber for condensing said steam and feeding the condensed liquid to said liquid collecting end of said carrier.

5. The device as set forth in claim 1, further including a fan producing a force air flow; and an air duct introducing said forced air flow into between said discharge end and said second electrode.

6. The device as set forth in claim 5, further including a baffle shielding said carrier from said forced air flow.

7. A humidifier including the electrostatically liquid misting device as defined in claim 1, said humidifier including a housing provided with a fan producing a forced air flow said housing including an steam duct which receives a portion of said steam from said steam supply to carry said steam on said forced air flow to direct the steam outside of said housing.